IN THE CLAIMS:

1.   (currently amended) A system for implementing a backoff protocol, comprising:

a client subsystem configured to generate a request for access to a shared resource; and

a server subsystem configured to receive said request, return a LOCKED indicator upon an expectation that said shared resource is unavailable and otherwise return a FREE indicator, said client subsystem further configured to respond to said LOCKED indicator by waiting an amount of time proportional to twice a previous amount of time associated with said waiting before regenerating said request for said access.

2.   (previously presented) The system as recited in Claim 1 wherein said server subsystem has said expectation when said server subsystem returned said FREE indicator less than $\Delta + 2\delta$ time units previously.

3.   (original) The system as recited in Claim 1 wherein said server subsystem is replicated among a plurality of separate servers.

4.   (original) The system as recited in Claim 1 wherein said system is coupled to a synchronous computer network.

5.   (original) The system as recited in Claim 1 wherein a unique rank is associated with said request.

6.   (currently amended) The system as recited in Claim 1 wherein said ~~amount of time is proportional to twice a previous amount of time associated with said waiting~~ shared resource is an Ethernet channel.

7.   (previously presented) The system as recited in Claim 1 wherein said request is independent of digital signatures.

8.   (currently amended) A method of implementing a backoff protocol, comprising:

generating a request to a server subsystem for access to a shared resource;

determining if said shared resource has an expectation of being unavailable;

returning a LOCKED indicator based upon said expectation when said shared resource is unavailable and otherwise returning a FREE indicator; and

responding to said LOCKED indicator by waiting <u>an amount of time proportional to twice a previous amount of time associated with said waiting</u> before regenerating said request for said access.

9.   (previously presented) The method as recited in Claim 8 wherein said server subsystem has said expectation when said server subsystem returned said FREE indicator less than $\Delta + 2\delta$ time units previously.

10.   (original) The method as recited in Claim 8 wherein said method is carried out in a synchronous computer network.

11.   (original) The method as recited in Claim 8 wherein a unique rank is associated with said request.

12.   (original) The method as recited in Claim 8 wherein said shared resource is an Ethernet channel.

13.   (previously presented) The method as recited in Claim 8 wherein said request is independent of digital signatures.

14.   (currently amended) A computer network, comprising:

a plurality of clients;

a plurality of servers coupled to said plurality of clients;

at least one shared resource coupled to said plurality of servers;

a system for implementing a backoff protocol with respect to said at least one shared resource, including:

a client configured to generate a request for access to a shared resource, and

a server configured to receive said request, return a LOCKED indicator upon an expectation that said shared resource is unavailable and otherwise return a FREE indicator, said client further configured to respond to said LOCKED indicator by waiting <u>an amount of time proportional to twice a previous amount of time associated with said waiting</u> before regenerating said request for said access.

15.   (previously presented) The computer network as recited in Claim 14 wherein said server subsystem has said expectation when said server subsystem returned said FREE indicator less than $\Delta + 2\delta$ time units previously.

16.   (original) The computer network as recited in Claim 14 wherein said computer network is synchronous.

17.   (original) The computer network as recited in Claim 14 wherein a unique rank is associated with said request.

18.   (original) The computer network as recited in Claim 14 wherein said one of said at least one shared resource is an Ethernet channel.

19.   (previously presented) The computer network as recited in Claim 14 wherein said request is independent of digital signatures.

20.   (previously presented) The system as recited in Claim 1 having an amortized system response time independent of a maximum number of possible requests for access to said shared resource.